

AGA=6B

Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2

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**Complete if Known**

**Application Number**

**Filing Date**

**September 26, 2003**

**First Named Inventor**

### Group Art Unit

1623

Examiner Name \_\_\_\_\_

Attorney Docket Number

$$AGA=6B$$

#### OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

[illegible]

**Examiner  
Signature**

L. E. Crane

Date  
Considered

03/07/2006

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<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 3

**Complete if Known**

Application Number	10/670,525
Filing Date	9-26-2003
First Named Inventor	Hajime AGA et al
Group Art Unit	2833 -- 1623
Examiner Name	
Attorney Docket Number	GA-6B

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
Me	AQ	US-4,963,385	10-18-1990	ANTRIM et al	
	AR	US-5,169,787 A	12-8-1992	MATSUURA et al	
	AS	US-5,587,424 A	10-22-1996	HASTINGS	
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
Me	AT	EP 0 297 887 A1	01-04-1989	QUADRANT BIORESOURCES LIMITED		
	AU	EP 0 556 838 A1	08-25-1993	TAKEDA CHEMICAL INDUSTRIES, LTD.		
	AV	EP 0 628 630 A2	12-14-1994	KABUSHIKI KAISHA HAYASHIBARA SEIBUTSU KAGAKU KENKYUJO		
	AW	EP 0 636 693 A2	02-01-1995	KABUSHIKI KAISHA HAYASHIBARA SEIBUTSU KAGAKU KENKYUJO		
	AX	EP 0690 130 A1	06-27-1994	KABUSHIKI KAISHA HAYASHIBARA SEIBUTSU KAGAKU KENKYUJO		
	AY	EP 0 691 344 A1	01-10-1998	KABUSHIKI KAISHA HAYASHIBARA SEIBUTSU KAGAKU KENKYUJO		
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	BA	EP 0 784 095 A2	07-16-1997	MOGEN INTERNATIONAL N.V.		
	BB	EP 0 816 509 A2	01-07-1998	IEBT-INSTITUTO DE BIOLOGIA EXPERIMENTAL E TECNOLOGICA		
	BC	EP 0 933 428 A2	08-04-1999	UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO		
	BD	JP 07-79739 A	03-28-1995	SANEI GEN F F I INC		Abs
	BE	JP 09-183943 A	06-24-1997	AJINOMOTO CO INC		Abs
	BF	JP 09-275994 A	10-28-1997	SHIZUOKA PREFECTURE		Abs
	BG	WO 93/00807 A1	01-21-1993	CRYOLIFE INC		
	BH	WO 95/01448 A1	01-12-1995	MOGEN INTERNATIONAL N.V.		
Me	BI	WO 95/06126 A1	03-02-1995	HOEKEMA et al		

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Sheet	2	of	3
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Application Number	10/670,525
Filing Date	9-26-2003
First Named Inventor	Hajime AGA et al
Group Art Unit	<del>2634</del> 1623
Examiner Name	
Attorney Docket Number	AGA-6B

## FOREIGN PATENT DOCUMENTS

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Application Number	10/670,525
Filing Date	9-26-2003
First Named Inventor	Hajime AGA et al
Group Art Unit	<del>2883</del> 1623
Examiner Name	
Attorney Docket Number	AGA=6B

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
<i>Me</i>	CB	ARGALL, et al., "The Use of Trehalose-Stabilized Lyophilized Methanol Dehydrogenase from <i>Hyphomicrobium</i> X for the Detection of Methanol", <i>Biochemistry and Molecular Biology International</i> , July 1993, Vol. 30, No. 3, 491-497.	
	CC	CARPENTER, et al., "Modes of Stabilization of a Protein by Organic Solutes During Desiccation", <i>Cryobiology</i> , 1998, Vol. 25, 459-470.	
	CD	CARPENTER, et al., "Separation of Freezing- and Drying-Induced Denaturation of Lyophilized Proteins Using Stress-Specific Stabilization", <i>Archives of Biochemistry and Biophysics</i> , June 1993, Vol. 303, No. 2, 456-464.	
	CE	CARPENTER, et al., "Stabilization of Phosphofructokinase during Air-Drying with Sugars and Sugar/Transition Metal Mixtures", <i>Cryobiology</i> , 1987, Vol. 24, 455-464.	
	CF	CARPENTER, et al., "Stabilization of Phosphofructokinase with Sugars During Freeze-Drying: Characterization of Enhanced Protection in the Presence of Divalent Cations", <i>Biochimica et Biophysica Acta</i> , 1987, Vol. 923, 109-115.	
	CG	GODDUN, et al., "Inhibition of Trehalase Activity Enhances Trehalose Accumulation in Transgenic Plants", <i>Plant Physiology</i> , 1997, Vol. 113, 181-190.	
	CH	Hajime, et al., "Stabilization by Trehalose of Superoxide Dismutase-like Activity of Various Vegetables", <i>Nippon Shokuhin Kagaku Kogaku Kaishi</i> , 1998, Vol. 45, 210-215. <b>Biosis Abstr: PREV199800255288, only abstract supplied.</b>	
	CI	LIPPERT, et al., "Enzyme Stabilization by Ectoine-Type Compatible Solutes: Protection Against Heating, Freezing and Drying", <i>Appl. Microbiol. Biotechnol.</i> , 1992, Vol. 37, 61-65.	
	CJ	RAMOS, et al., "Stabilization of Enzymes against Thermal Stress and Freeze-Drying by Mannosylglycerate", <i>Applied and Environmental Microbiology</i> , October 1997, Vol. 63, No. 10, 4020-4025.	
	CK	ROSER, et al., "A Sweeter Way to Fresher Food", <i>New Scientist</i> , IPC Magazines, 15 May 1993, Vol. 138, 25-28.	
	CL	ROSER, Bruce, "Trehalose Drying: A Novel Replacement for Freeze-Drying", <i>Biopharm.</i> , 1 September 1991, vol. 4, no. 8, 47-53.	
	CM	ROSER, Bruce, "Trehalose, a New Approach to Premium Dried Foods", <i>Trends in Food Science &amp; Technology</i> , July 1991, 168-169.	
	CN	SALEK, et al., "Trehalose - Stabilisation of Osmophilicity and Viability of Baker's and Distiller's Yeast: Applications to Storage and Drying", <i>Chem. Mikrobiol. Technol. Lebensm.</i> , 1995, Vol. 17, No. 1/2, 14-21.	
	CO	SUN, et al., "Cytoplasmic Vitrification and Survival of Anhydrobiotic Organisms", <i>Comp. Biochem. Physiol.</i> , 1997, Vol. 117A, No. 3, 327-333.	
<i>Me</i>	CP	URITANI, et al., "Protection Effect of Disaccharides on Restriction Endonucleases During Drying under Vacuum", <i>J Biochem</i> , 1995, vol. 117, 774-779.	

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Filing Date	September 26, 2003
First Named Inventor	Hajime AGA
Group Art Unit	1623
Examiner Name	
Attorney Docket Number	AGA6B

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<i>Me</i>	CB	US-4,806,343 A	02-21-1989	Carpenter et al.	
	CD	US-4,839,164 A	06-13-1989	SMITH WALTER P	
	CE	US-5,059,518 A	10-22-1991	KORTRIGHT KENNETH H et al	
	CF	US-5,149,653 A	09-22-1992	ROSER BRUCE J	
	CG	US-5,512,547 A	04-30-1996	Johnson et al.	
	CH	US-5,556,771 A	09-17-1996	Shen et al.	
<i>Me</i>	CI	US-5,935,838 A	08-1999	Nishimoto et al.	
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<i>Me</i>	CJ	DE 195 03 685 A	08-01-1996	INVITEK GMBH		
	CK	EP 0 693 558	01-24-1996	HAYASHIBARA BIOCHEM LAB		
	CL	EP 0 726 310 A	08-14-1996	GEN PROBE INC		
	CM	JP 60 149972 A	08-07-1985	YATORON: KK		
	CN	JP 6 040845 A	02-15-1994	SHISEIDO CO LTD		
	CO	JP 7 184378 A	08-01-1995	FUJI SEITO KK		
<i>Me</i>	CP	WO 97/42327 A	11-13-1997	ZENTELLA GOMEZ et al.		

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Substitute for form 1449A/PTO		Complete If Known	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/670,525
		Filing Date	September 26, 2003
		First Named Inventor	Hajime AGA
		Group Art Unit	1623
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Sheet 1 of 2	Attorney Docket Number	AGA6B	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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Jee	CQ	AGUILERA J M et al "Preservation of biological materials under desiccation" Critical Reviews in Food Science and Nutrition" Vol. 37, No. 3 (1997) pp: 287-309.	
	CR	BHANDAL I S et al "Trehalose As Cryoprotectant for the Freeze Preservation of Carrot Daucus-Carota and Tobacco Cells" Plant Physiology, Vol. 78, No. 2 (1985) pp: 430-432.	
	CS	COLACO C et al "Extraordinary Stability of Enzymes dried in Trehalose: Simplified Molecular Biology" Bio/Technology, Nature Publishing Co. Vol. 10, No. 9. (September 1992) pp: 1007-1011	
	CT	CROWE J H et al "Interactions of sugars with membranes" Biochimica et Biophysica Acta Vol. 947, No. 2 (June 1988) pp: 367-384.	
	CU	CROWE L M et al "Is trehalose special for preserving dry biomaterials?" Biophysical Journal, Vol. 71, No. 4, (October 1996) pp: 2087-2093.	
	CV	HOLMSTROM K O et al "Drought Tolerance in Tobacco" Nature, Macmillan Journals LTD, Vol. 379 (February 1996) pp: 683-684.	
	CW	MOURADIAN R et al "Degradation of Functional Integrity During Long-Term Storage of a Freeze-dried Biological Membrane" Cryobiology, Vol. 22, No. 2 (1985) pp: 119-127.	
	CX	NEWMAN Y M et al "The Role of Trehalose and other Carbohydrates in Biopreservation" Biotechnology and Genetic Engineering Reviews, Intercept LTD. Vol. 11 (December 1993) pp: 263-294	
	CY	PANEK A D "Trehalose metabolism: New horizons in technological applications" Brazilian Journal of Medical and Biological Research" Vol. 28, No. 2 (1995) pp: 169-181	
	CZ	RUDOLPH A S et al "Dry Storage of Liposome-Encapsulated Hemoglobin a Blood Substitute" Cryobiology, Vol. 27, No. 6 (1990) pp: 585-590	
	DA	RUDOLPH A S "The Freeze-Dried Preservation of Liposome Encapsulated Hemoglobin A Potential Blood Substitute Cryobiology" Vol. 25, No. 4 (1988) pp 277-284.	
Jee	DB	SOLA-PENNA M et al "Protective role of trehalose in thermal denaturation of yeast pyrophosphatase" Zeitschrift fur Naturforschung, Journal of Biosciences (May 1994) Vol. 49, No. 5-6 pp: 327-330.	

Examiner Signature	L. E. Crane 	Date Considered	03/07/2006
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